

# Access Compliance Interpretations of Regulations

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IR #	Date	Title
IR 11B-1	01-26-05	Visual Alarms in Classrooms
IR 11B-2	01-26-05	Beveled Lip at Curb Ramps
IR 11B-3	01-26-05	Detectable Warnings at Curb Ramps
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## VISUAL ALARMS IN CLASSROOMS

# IR 11B-1

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Discipline: Access Compliance

Issued 01-26-05

References: California Building Code: Sections 1114B.2.4 and 3501.1 Sec. 4-4.5.  
Americans with Disabilities Act Standards for Accessible Design 4.1.1(1) and 4.1.3(14)  
California Government Code Section 4451(d)

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**Purpose:** This interpretation clarifies acceptable design and installation requirements for fire alarm systems installed in new buildings containing classrooms for projects under Division of the State Architect (DSA) jurisdiction, which includes state-funded buildings and facilities, State of California public elementary and secondary schools (grades K-12), community colleges and universities.

**General:** Unlike audible alarms, visual alarms are typically located within the space they serve so the signal is visible to the occupants of the space. The Americans with Disabilities Act Standards for Accessible Design Section 4.1.3(14) indicates that when emergency warning systems are provided, they shall include both audible and visual alarms. Since classrooms in newly constructed buildings are required to be accessible by Section 4.1.1(1), where audible alarm coverage is provided, the emergency warning system shall also provide visual alarm coverage.

**Design Requirements:** Per California Government Code 4451(d), until such building standards are published in the California Building Standards Code that meet or exceed the requirements of the federal Americans with Disabilities Act, specifically in this case the Americans with Disabilities Act Standards for Accessible Design Section 4.1.3(14), effective March 1, 2005, DSA will accept construction documents for new construction (new buildings) that indicate visual fire alarm coverage for all classrooms<sup>1</sup> that are provided with audible fire alarm coverage.

<sup>1</sup> United States Architectural and Transportation Barriers Compliance Board: ADAAG Manual, A guide to the Americans with Disabilities Act Accessibility Guidelines, July 1998, p. 98, Visual Alarms (4.28.3); Technical Bulletin #2: Visual Alarms, July 1994, <<http://www.access-board.gov/publications/bulletins/alarms.htm>>; Specific ADAAG Provisions, Technical and Scoping Requirements, Visual Alarms (4.28.3) <<http://www.access-board.gov/adaag/about/4.28.htm>>

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## BEVELED LIP AT CURB RAMPS

# IR 11B-2

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Discipline: Access Compliance

Issued 01-26-05

References: California Building Code Sections: 1117A.4.5 and 1127B.5 Items 3 & 5

See IR 11B-3

California Government Code Section 4451(d) & (f).

Americans with Disabilities Act Standards for Accessible Design Section 4.7.2

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**Purpose:** This interpretation clarifies acceptable design and installation requirements for curb ramps under Division of the State Architect (DSA) jurisdiction, which includes state-funded buildings and facilities, State of California public elementary and secondary schools (grades K-12), community colleges and universities.

**General:** California Building Code (CBC) Section 1127B.5 Item 3 states: "Transitions from ramps to walks, gutters, or streets shall be flush and free of abrupt changes, except that curb ramps shall comply with Item 5...." CBC Section 1127B.5 Item 5 states: "The lower end of each curb ramp shall have a 1/2 inch (13 mm) lip beveled at 45 degrees as a detectable way-finding edge for persons with visual impairment."

However, the Americans with Disabilities Act Accessibility Standards for Accessible Design Section 4.7.2 does not allow a beveled lip at the lower end of a curb ramp and states: "Transitions from ramps to walks, gutters, or streets shall be flush and free of abrupt changes."

**Design Requirements:** Per California Government Code 4451(d), until such building standards are published in the California Building Standards Code that meet or exceed the requirements of the federal Americans with Disabilities Act, and specifically in this case the Americans with Disabilities Act Standards for Accessible Design Section 4.7.2, the DSA will accept curb ramp designs which indicate that the lower end of each curb ramp is flush and free of abrupt changes, without a beveled lip. All such curb ramp designs shall incorporate a detectable warning surface (truncated domes) as indicated in other sections of the CBC, and Access Compliance IR 11B-3.

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## DETECTABLE WARNINGS AT CURB RAMPS

# IR 11B-3

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Discipline: Access Compliance

Issued 01-26-05

References: California Building Code Sections: 1117A.4.7 and 1127B.5 Item 8

See IR 11B-2 and 11B-4

California Government Code Section 4451(d)

Americans with Disabilities Act Standards for Accessible Design Section 4.7.7

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**Purpose:** This interpretation clarifies acceptable design and installation requirements of detectable warnings at curb ramps under Division of the State Architect (DSA) jurisdiction, which includes state-funded buildings and facilities, State of California public elementary and secondary schools (grades K-12), community colleges and universities.

**General:** California Building Code Sections 1127B.5 Item 8 and 1117A.4.7 state "a curb ramp shall have a detectable warning....when the ramp slope is less than 1 unit vertical to 15 units horizontal (6.7% slope)."

However, the Americans with Disabilities Act Standards for Accessible Design Section 4.7.7 indicates that curb ramps shall have a detectable warning surface without regard to the slope of the ramp.

**Design Requirements:** Per California Government Code 4451(d), until such building standards are published in the California Building Standards Code that meet or exceed the requirements of the federal Americans with Disabilities Act, and specifically in this case the Americans with Disabilities Act Standards for Accessible Design Section 4.7.7, the DSA will accept curb ramp designs which indicate detectable warnings at curb ramps regardless of slope.

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**DETECTABLE WARNINGS**

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**IR 11B-4**

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Discipline: Access Compliance  
References: California Building Code Sections: 1117A.4.5 and 1127B.5 Items 3 & 5  
California Government Code Section 4451(d) & (f).  
Americans with Disabilities Act Standards for Accessible Design Section 4.7.2

Revised 12-08-05  
Issued 01-26-05  
See IR 11B-3

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**Purpose:** This interpretation clarifies acceptable alternative design and installation requirements for detectable warnings under Division of the State Architect (DSA) jurisdiction, which includes state-funded buildings and facilities, State of California public elementary and secondary schools (grades K-12), community colleges and universities.

**General:** The California Building Code indicates technical criteria for detectable warning surfaces (truncated domes). The technical criteria include dome pattern, dome spacing and dimensional placement.

The U.S. Access Board develops the minimum design standards for complying with the ADA, and has also developed and considered detailed research studies regarding pedestrians and the use of detectable warning surfaces. Under the Access Board, the Public Rights-of-Way Access Advisory Committee was established in 1999 to develop additional ADAAG provisions. The advisory committee reached agreement on recommended accessibility standards for new and altered public rights-of-way covered by the ADA. The standards proposed by the committee were presented in a report titled *Building a True Community*. The draft guidelines issued by the Access Board, consistent with the advisory committee's recommendations, include revised technical criteria for detectable warnings.

The U.S. Department of Transportation (USDOT) is a designated agency responsible for enforcing the standards and implementing regulations of the ADA Title II (State and Local Government Services). The Federal Highway Administration (FHWA), under the USDOT, is the enforcement authority for overseeing pedestrian discrimination issues under the Title II implementing regulations. Both FHWA and the Access Board are encouraging the use of the new technical criteria for detectable warnings over the original ADA design standard.

**Acceptable Alternative Designs:** The Division of the State Architect (DSA) recognizes the federal research effort and that the new technical criteria provide substantially equivalent or greater access and usability as modified and specifically indicated below.

Regarding the dome pattern and dome spacing for detectable warnings, the DSA will accept, as an acceptable alternative design, detectable warning surfaces that comply with all of the following:

1. Pattern: Detectable warnings consisting of a surface with truncated domes that are aligned in a square grid (in-line) pattern.

2. Dome Spacing: Truncated domes aligned in a square grid (in-line) pattern shall have a center-to-center spacing of 1.67 inches (42.4 mm) to 2.35 inches (59.7 mm).

In addition to the above criteria regarding detectable warning design, the DSA will accept, as an acceptable alternative design, dimensional placement of detectable warning surfaces at curb ramps that comply with the following criteria:

3. Dimensional Placement at Curb Ramps: The detectable warning surface shall extend 36 inches (914.4 mm) minimum in the direction of travel for the full width of the curb ramp and shall be located so that the edge nearest the curb line is 6 inches (152.4 mm) minimum and 8 inches (203.2 mm) maximum from the curb line. *Curb line* means a line at the face of the curb that marks the transition between the sidewalk and the gutter or roadway. For curb ramps, also see IR 11B-2 and 11B-3.

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## EFFORT TO OPERATE EXTERIOR DOORS

# IR 11B-5

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Discipline: Access Compliance

Issued 04-07-06

References: California Building Code Sections: 206 (Entrance) & 1133B.2.5

California Government Code Section 4451(f)

California Education Code 17308(d)

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**Purpose:** This interpretation clarifies acceptable design and installation requirements for exterior entrance doors at projects under the jurisdiction of the Division of the State Architect (DSA).

**General:** The California Building Code (CBC) indicates technical criteria for the effort to operate exterior entrance doors. The technical criteria indicate that the effort to operate exterior doors shall not exceed 5 pounds. At some installations, achieving and maintaining the maximum 5 pound effort may be difficult to accomplish primarily due to wind forces and HVAC stack pressures. In those cases an automatic door operator can be used as a compensating device to meet the *effort to operate* standard.

**Issue:** The 1998 CBC previously indicated that the effort to operate exterior doors shall not exceed 8½ pounds. The 2001 CBC Section 1133B.2.5 now indicates that the effort to operate an exterior door shall not exceed 5 pounds. However, this code section does not address an exterior entrance where multiple door leafs are provided at one location.

**Resolution:** Therefore, at each accessible entrance where multiple door leafs are provided at one location, at least one door leaf shall have a maximum effort to operate not to exceed 5 pounds; the effort to operate the remaining door leafs shall not exceed 8½ pounds. At entrances where the International Symbol of Accessibility (ISA) is required, the door meeting the 5 pound standard (or where an automatic door operator is used as a compensating device) shall be the door identified with an ISA. When an accessible route to an exterior entrance with multiple door leafs is provided, the door leaf meeting the 5 pound effort shall be located on the shortest route of travel when possible.

For the purposes of this IR, the term *exterior entrance* means a single door or multiple doors grouped together at one location. It should be noted that a building or facility may have more than one exterior entrance, where entrances are provided at more than one location.